

Public Safety Wireless Network Program

*Achieving Interoperability through
Cooperation and Coordination*



Strategic Plan

Part of the PSWN Program Five-Year Plan

THE STRATEGIC PLAN

"Meeting the Challenge Head On"

Our Strategic Plan provides the vision, mission, and strategic goals and objectives for the program. It describes our strategies for meeting these goals and it depicts how these strategies interact to determine annual activities. Figure 1 is an illustration of our strategic framework. It is through this framework that our strategies interact to help us address the issue of interoperability among public safety wireless networks.

The pyramid in the center of the strategic framework represents our identity. Our vision, mission, and strategic goals and objectives tell who we are, what we are striving to achieve, and what strategic steps we are taking. (Pages 2 and 3).

The outer square illustrates that we are not a "closed system." We fully understand that factors outside our control can and will affect our ability to help improve interoperability within the public safety community. (Page 4)

The area encircling the pyramid represents the PSWN program's action plan. The action plan comprises our three strategies: process, execution, and management. The aggregate effect of these strategies will allow us to achieve our strategic goals. (Pages 5-7)

In addition to our awareness of external factors and our solid action plan, we have established requisite internal processes to evaluate our progress and improve our effectiveness. (Page 8)

The elements of the strategic framework come together to form an integrated "strategy-in-action." The interaction of the strategies helps determine near- and long-term activities for the program, translating strategic intent into targeted action. (Pages 9 and 10).

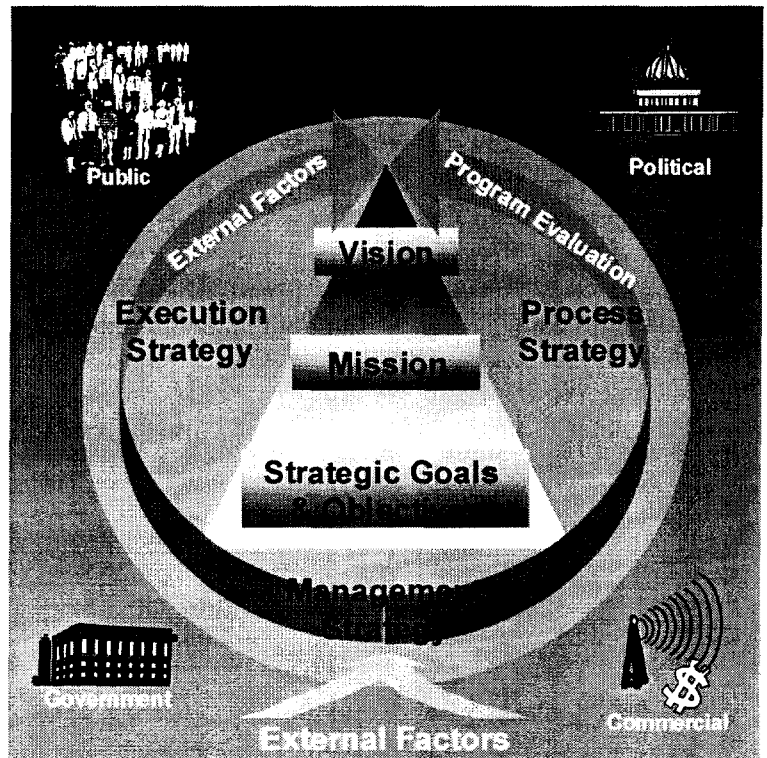


Figure 1: Strategic Framework

PSWN PROGRAM VISION AND MISSION

"Achieving Interoperability through Cooperation and Coordination"

A SHARED VISION...

Seamless, coordinated, and integrated public safety communications for the safe, effective, and efficient protection of life and property.

We share our vision of improved public safety communications with many organizations. These organizations include local, state, and federal agencies whose missions encompass the protection of life and property. Our vision is consistent with the Vice President's National Partnership for Reinventing Government (NPRG), formerly known as the National Performance Review, and the NPRG's commitment to use information technology as the "great enabler for reinvention" of government services that benefit citizens.

A COMPELLING MISSION...

To plan for and foster interoperability among wireless networks that meet the requirements of local, state, and federal public safety in a manner consistent with the NPRG.

The NPRG has challenged the public safety community to make their communications more effective, efficient, and cost effective to better serve their customers. The NPRG has identified urgent actions for the community to address. Our mission stems from these actions and from strategic direction provided by our stakeholders.

...TO ACHIEVE INTEROPERABILITY

Assist with the integration of communications systems that permit persons from two or more different public safety agencies to interact with one another and to exchange information according to a prescribed method in order to achieve predictable results.

The NPRG suggests and we recognize that improving interoperability, and thus public safety communications as a whole, is a multi-dimensional challenge. We view five dimensions as essential building blocks for interoperability: spectrum, funding, technology, organization, and operations. A common theme throughout our efforts is addressing and resolving issues related to each of these aspects of interoperability.

STRATEGIC GOALS AND OBJECTIVES

"Targets for Achieving Interoperability"

Strategic Goal 1: Serve as a focal point for establishing interoperable communications.

Related Strategic Objectives:

- Establish a technical resource center that becomes a center of excellence for public safety wireless communications to provide a mechanism for unifying, educating, and leveraging the public safety community to address the NPRG actions.
- Assess the current environment as it relates to the five dimensions of interoperability through data collection, analysis, and testbed demonstrations.
- Participate in pilot implementations that build on demonstrations, provide proofs of concepts, and serve as catalysts for broader efforts to improve regional interoperability.
- Compile best practices, recommendations, and other findings that promote interoperability, as precursors to developing an implementation plan.

Strategic Goal 2: Establish a national implementation plan for interoperability.

Related Strategic Objectives:

- Create guidelines that address critical implementation issues such as funding, acquisition strategies, migration, quality assurance, risk management, security, and training.
- Develop the National Implementation Plan for Interoperability (NIPI) by integrating the guidelines and incorporating appropriate management processes and "how to" guides.
- Promote awareness and adoption of the implementation guidelines and the NIPI by the public safety community through concerted outreach efforts.

Strategic Goal 3: Maximize the effectiveness of interoperability implementation efforts.

Related Strategic Objectives:

- Provide information exchange services that foster interoperability and help integrate public safety communications in a manner consistent with the NIPI.
- Provide implementation assistance services that further ensure the thorough and successful enactment of the NIPI.

EXTERNAL FACTORS

"Working within Our Environment"

- A targeted set of activities that help exploit the positive effects and counter the negative consequences of *prominent entities and significant events* within our environment, but outside our span of control.
- A thorough understanding of *government* entities responsible for providing sufficient resources (i.e., spectrum and funding) and for supporting certain technology developments, such as those related to security.
- A keen awareness of the efforts of *industry* to provide technical standards, security enhancements, and affordable equipment in support of the land mobile market.
- A recognition that *key change events*, such as large-scale accidents and high-profile criminal investigations, can shift public opinion and political support to or from the desired focus on interoperable public safety communications.

Our program's ability to plan and foster interoperability depends in some measure on external factors, i.e., the actions of *prominent entities* and the impacts of *significant events* that are outside our span of control, but generally within our span of influence. We perform activities to identify and understand the possible impacts of these external factors on our ability to complete our mission and achieve our strategic goals and objectives. Building on this understanding, we use management processes or program activities to influence and mitigate the impacts of these factors.

The availability of critical resources for enabling interoperability such as funding and radio spectrum is largely dependent upon *government* actions at the local, state, and federal levels. Spectrum regulators such as the FCC and the NTIA are responsible for public safety spectrum allocations, assignments, assignment procedures, and usage designations. Legislative activities within Congress, state legislatures, and local governments influence the commitment of funds to improve public safety communications systems.

The land mobile radio (LMR) *industry*, both equipment vendors and service providers, are focused on areas of the wireless market that are much larger and more lucrative than public safety LMR. To date, this market environment has borne diverse and incompatible approaches to LMR equipment and systems development. Facets of the LMR industry are only beginning to adopt technical standards for public safety LMR that could improve interoperability, foster competition, and reduce equipment and service cost.

History has shown that *key change events* have focused the attention of the public, the media, and government on improving public safety interoperability. For example, in 1982, two major disasters occurred simultaneously in Washington DC—an Air Florida jet crash and a city metrorail derailment. The disasters demonstrated deficiencies in communications capabilities, one of which was a lack of communications interoperability. In response, Congress directed the FCC to allocate additional spectrum for public safety use and to develop a National Plan that established mutual aid channels for joint operations.

PROCESS STRATEGY

"A Two-Phased Framework for Pursuing Strategic Objectives"

- A process that recognizes public safety communications systems as critical IT assets and embraces Federal Government guidance calling for a *phased approach* to the performance of IT projects.
- A first phase, *PSWN Implementation Planning*, which consists of an integrated set of studies and evaluations that result in a knowledge base for developing the NIPI.
- A second phase, *PSWN Implementation Assistance*, which includes activities to maintain the knowledge base developed under the first phase and services that assist the public safety community with the execution of the NIPI.

The Information Technology Management Reform Act (ITMRA) urges a *phased approach* to IT projects, to manage risk and to ensure wise IT investments. Large-scale endeavors, such as the life-cycle development processes needed to establish and sustain nationwide interoperability between public safety wireless networks, are prime candidates for phased developments. In accordance with ITMRA, the PSWN program is employing a two-phased approach to plan and foster the implementation of the PSWN.

Phase I is *PSWN Implementation Planning* and takes place from FY 1997 through FY 2001. During this phase, we are developing an implementation plan for establishing a nationwide, interoperable, public safety wireless communications system. The Phase I process includes data collection, analysis, and recommendations; case studies, testbeds, demonstrations, and pilot projects; and trailblazing implementations and implementation assistance. The aggregate effect is an information baseline sufficient for defining the NIPI. We evaluate the evolving baseline to identify and capture, as implementation guidelines, best practices, innovative designs, integrated solutions, standard operating procedures, etc. These guidelines form the basis of the NIPI.

Phase II is *PSWN Implementation Assistance* and will take place from FY 2002 through FY 2006. During this phase, we will offer a suite of services that assist the public safety community with the execution of the NIPI. These services could include an "implementation information clearinghouse" and "implementation assistance teams" that work as integrated members of specific systems development teams. The services could also include planning and design assistance for large-scale regional interoperability pilot projects that result in the development of a major system segment (a "PSWN Regional Hub"). The specific nature of these services will become more definitive during the latter stages of Phase I.

EXECUTION STRATEGY

"An Integrated Process for Bringing Strategic Focus to Activities"

- A set of complementary *initiatives* that provide outreach, systems development support, and analytical studies during both phases of the process strategy.
- An array of *activities* organized by initiative to address specific needs that vary or evolve over time in accordance with the process strategy to target program objectives.
- An annual activity plan for the current year, a similar plan for the pending year, and a long-term plan for the subsequent three years to ensure activity *integration*.
- A cumulative, coherent family of *services* that lead to, and support, the principle outcome of each phase of the process strategy.

A careful analysis of our strategic goals and objectives reveals the need for three complementary *initiatives*: outreach, systems development support, and analytical studies. Outreach allows the program to unite, educate, and leverage public safety stakeholders. Through systems development support, network concepts and operating principles are identified, tested, and advanced. Analytical studies enable the program to address and help resolve discrete questions and complex matters.

For each initiative, various *activities* are designed and performed to achieve initiative goals, which vary by year. The nature and intensity of these activities change with time as each initiative evolves over time with the process strategy. For example, early in Phase I the range and number of analytical studies are significant; however, these studies will become more selective and targeted later in Phase I as systems development support efforts are emphasized.

Activity *integration* is an essential element of our approach to program execution. One activity generates information that is essential to many, resulting in a layered evolution of knowledge. For example, studies of radio communications systems produce recommendations that lead to testbed activities. The estimation of replacement costs is important for determining funding mechanism requirements.

The activities provide a range of *services* to our stakeholders. Whether the output of an activity is an analytical report, a symposium session, a testbed, or a "how to" guide, the intent of the output is to provide valuable information, guidance, and assistance. Systems managers who take advantage of the services offered by the program, for example, should be better equipped to work toward our vision and provide seamless, coordinated, and integrated communications to their users.

MANAGEMENT STRATEGY

"A Progressive Approach to Leadership, Direction, and Control"

- A flexible, virtual *organization* that draws participation from key stakeholders, including users, radio managers, and senior executives from all levels of government, and that capitalizes on information from industry and academia.
- A comprehensive approach to five-year *planning* that flows from the program's charter, is consistent with the Government Performance and Results Act (GPRA), and enables continuous targeting toward strategic goals and objectives.
- A balanced approach to *program evaluation* with outcome measures at the strategic level to ensure "the right things are being done" and output measures at the tactical level to ensure "things are being done right."
- A concerted effort to understand, influence, and accommodate *external factors* that affect the program through developing an awareness of their impact on performance and by making judicious adjustments to the program plan.

The program *organization* is a "virtual agency" that integrates leadership from key agencies, includes participation from numerous public safety officials, and incorporates information from industry and academia. Resources are configured to address shifting needs, as the execution strategy tracks along the process strategy.

The direction of the program is determined and maintained through a *planning* process that incorporates input from users, radio managers, and senior executives at all levels of government. The result is a comprehensive five-year plan that is updated quarterly, to capture the near-term results of the execution strategy, and annually, to reflect the progression of the process strategy.

Program evaluation is essential to program planning. At both the strategic and tactical levels, balanced measures of program performance are taken to ensure program effectiveness. Based on program performance, adjustments are made to the strategic, long-term, and pending year plans, to modify what we are doing, and to the current annual plan, to improve how we are performing specific activities.

The effectiveness of the program also depends on *external factors*. Media coverage, industry trends, regulatory developments, congressional oversight and legislative initiatives, and political changes throughout government circumscribe program success. Strategies for influencing and mitigating the effects of these factors are integrated within the program plans and adjusted as events merit.

PROGRAM EVALUATION

"Measuring Performance and Staying on Track"

- A balanced *framework* of three perspectives that measures program progress toward meeting strategic goals and that adheres to Federal Government guidance.
- A set of *customer perspective* measures that examine the level of quality and the types of products, services, and relationships required today.
- A set of *innovation and learning perspective* measures that are forward-thinking and monitor what is required to remain successful and responsive to customer needs in the future.
- A set of *internal perspective* measures that examine the program's use of resources and its commitment to quality.

The Government Performance and Review Act (GPRA) requires that an agency's strategic goals and objectives be linked to annual performance goals and to the day-to-day activities of its managers and staff. Our *framework* uses outcome measures at the strategic level for assessing overall program effectiveness and output measures at the tactical level for measuring progress toward completing annual performance goals. The program's performance goals are updated annually as a key component of the management strategy and documented as part of our five-year plan.

Fostering the implementation of interoperability through encouraging near-term improvements and, in time, through assisting with the enactment of the NIPI, will require that our program sustain credibility within the public safety community. Our credibility will be maintained by providing high-quality products and services that are of real value to the community. Using the set of *customer perspective* measures, we will strive to obtain our customers' views on "Are we doing the right things?" and "Are we doing things right?"

The *innovation and learning perspective* is forward-thinking and forward-looking and helps to assess our ability to sustain credibility into the future. The critical components of this measurement are to strive for continuous product and service improvement, to maintain an informed and empowered workforce, and to remain proactive to changing stakeholder needs.

The *internal perspective* is a critical self-assessment by the program to ensure that we are providing quality products and a complete range of services that are needed by our stakeholders. We are also using outcome and output measures to assess the quality of our project management processes and of our use of resources.

OUR STRATEGY IN ACTION

"Putting Strategies in Motion to Determine Annual Activities"

The PSWN program has adopted a strategic framework to establish, focus, and organize our activities. The three strategies within the framework—process, execution, and management—are complementary. They interact and reinforce each other to reveal *how*, *when*, *what*, and *why* program and management activities should be performed. The process strategy provides the foundation. It frames *how* and *when* activities are performed. As shown in Figure 2, the process strategy is the broad backdrop against which the other strategies unfold. The types of work efforts allowed for by the process strategy are a direct reflection of actions needed to address our strategic objectives. The relative levels of effort constitute the “mix,” through time, that best positions us to achieve our strategic goals.

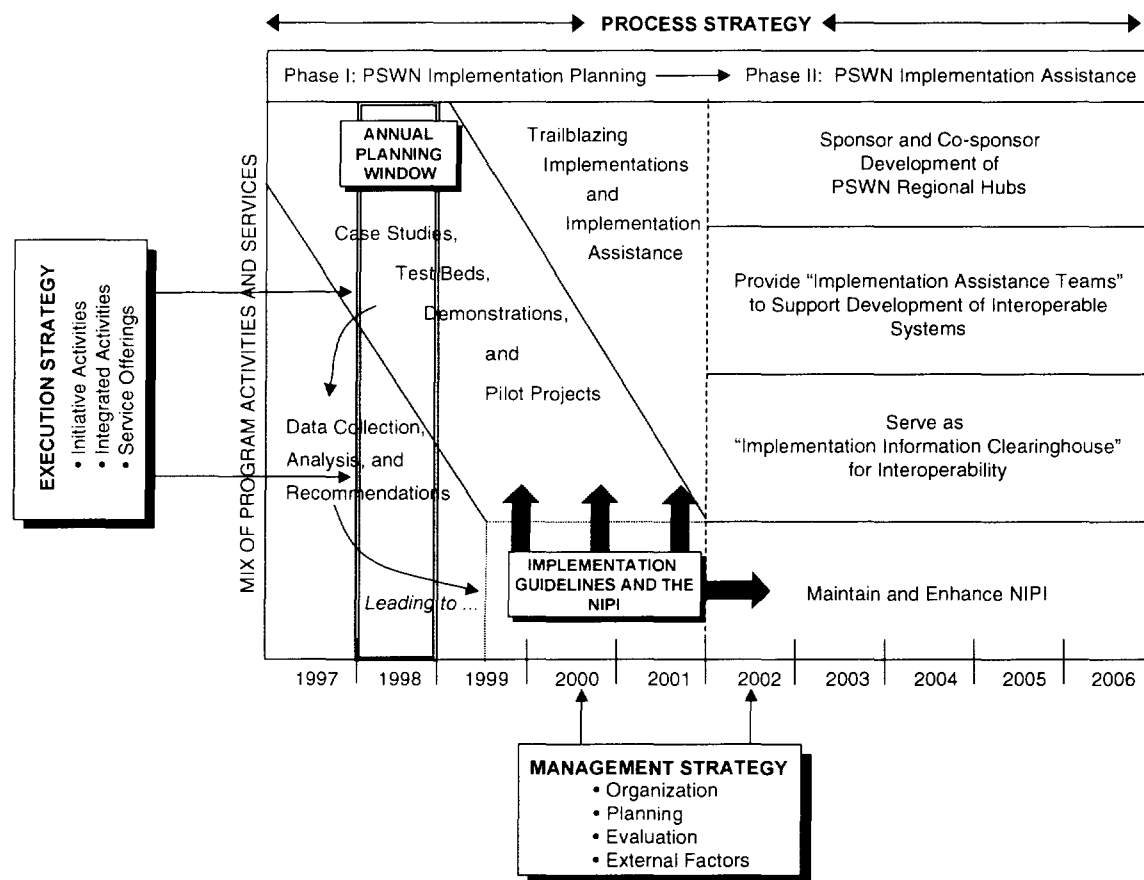


Figure 2: Strategies in Action

The execution strategy consists of three initiatives: outreach, systems development support, and analytical studies. This strategy prescribes *what* program activities should be performed. All PSWN program activities are organized into one of these initiatives. These initiatives are expected to be present throughout both phases of the process strategy. Their specific natures will evolve over time, however, as each interacts with the process strategy. For the execution strategy, this interaction “asks” what activities for each initiative

should be performed and when they should be completed. For example, consider the “annual planning window” shown in Figure 2. One question that the intersection of the process and execution strategies begs is “What type of data collection work efforts should be performed to meet the annual goals of the analytical studies initiative?” The answers (i.e., specific data collection work efforts) are identified and detailed in the analytical studies portion of the program’s integrated activity plans. The corresponding relative levels of effort are noted to give further definition to the process strategy.

The management strategy, as described earlier, provides our leadership, direction, and control mechanisms. It is the regulator of the “strategy-in-action” process. The management strategy interacts with the process strategy to result in program adjustments. These adjustments ensure that we remain within the limits of our responsibilities. They also ensure that our actions encompass the full sweep of our responsibility set. Further, the adjustments help ensure that the program operates within its means, is responsive to changes in the environment, and reflects feedback from program evaluations. For example, consider a situation where program stakeholders indicate a strong desire to move studies past the analytical phase. In this case, the interaction of the process and management strategies may result in a management decision to place greater emphasis on testbeds and demonstrations. The process strategy is adjusted to increase the relative level of effort for testbeds and demonstrations. This change ripples into the execution strategy, with activities in the systems development support initiative increasing accordingly.

What evolves from the interaction of our three strategies is an activity plan that is inherently integrated. The levels and types of program work efforts for a given year flow from what is required to satisfy annual goals and objectives, as determined by the interaction of the process and execution strategies. The levels and types of program work efforts are then “calibrated” relative to each other by the interaction of the process and management strategies. We use this dynamic to adjust activities within each initiative for the current year, and to project activities within each initiative for the pending year and for the subsequent three years addressed in the long-term plan. In this way, our strategic plan connects to, and has bearing upon, our integrated annual plans and our long-term plan.